



IT'S MORE THAN JUST A BOAT RIDE

By Jim Gladson, L.A. Maritime Institute

Abstract

The sailing school vessel provides an educational venue, rich in potential for the development of knowledge, skills, and attitudes that are both necessary for the education of today's youth, and difficult to teach in the classroom. The sailing school provides a challenging yet nurturing environment that readily meets the needs of the adolescent and young adult learner. It is notably effective with those youths who are not coping well with the demands of society and are at risk of dropping out of school and/or the quest for a successful and productive life. Such youths often see themselves as being incapable of living in harmony with mainstream society, destined for lives of failure. The sailing school experience enriches, validates, and challenges the conventional school curricula. Science, mathematics, physics, biology, geography, history, literature, and even poetry suddenly come to life in this real world classroom.

Frequently observed with sailing school students, is this growth sequence of developing skills: Awareness, Understanding, Communication, Cooperation, and Teamwork. At the same time the students' attitudes mature in: Persistence, Patience, Endurance, Courage, and Caution. This program gives them real-life experience in: Problem solving, Decision making, Planning, Self-reliance, and Leadership.

Not only is this an impressive list of outcomes for any educational endeavor, it is demonstrably cost effective to achieve these goals with sailing school vessels.

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As a sail training teacher since 1972, I have often been asked to justify "taking the kids sailing when they really ought to be in school". It's easy to understand the concern. The general public, even casual recreational boaters, tend to view sailing as a recreational activity indulged in by the leisure class. Yacht racing is seen as an obscenely expensive elitist pastime, epitomized by the recurrent America's Cup spending orgies. Sail training is as different from these impressions as Disneyland is from the ghetto.

Many of the deficiencies of our present day education system, which have been so vividly described in the national press, are, very difficult to correct in the classroom. For example, problem solving. Even the most successful teachers will tell you that while it is relatively simple to teach about problem solving skills, it is very difficult to teach skillful problem solving even with bright, eager, enthusiastic, students in well equipped classrooms. And yet these learnings are commonplace, if not inevitable on board sailing school vessels. As Captain David Wood, Commanding Officer of the USCG Sail Training Barque EAGLE, stated: "Sail training vessels present real problems, that require real solutions, that you can't walk away from", and you can see the results of your decisions.

Problem solving is only one of a myriad of learnings that take place so readily under sail. The best way to understand this is to participate in a sail training voyage. But for those of you who have not yet had that opportunity, let me describe some of the observations I have made with my students.

To begin with, nearly all of the kids come aboard equally naive. That is, very few of them have had any prior sailing experience, and therefore their streetwise and/or classroom pecking orders are not in effect. They are not heavily burdened with the baggage of a reputation to live up to. This is true to a large extent even with kids who were acquainted ashore.

The kids come into an immediate environment that is composed of a completely integrated array of systems that must be operated hands on, with both mind and muscle engaged. Some of the tasks, such as raising sails, require a coordinated team effort, physically pulling together, while others, such as steering the vessel, can only be done by one person at a time, acting alone, but in concert with the whole ship. The rules under which these systems function are both simple and demanding. They are not the rules of the teacher or the school board or the government. They are the rules of nature imposed fairly and consistently. The competition is with ignorance, ineptitude, and fear. By conquering these enemies, sail training enables us to produce winners without the usual need to produce a matching set of losers.

Once underway, there begins the never ending task of learning to work the vessel in the interaction of two infinitely variable, yet inter-related realms of fluid dynamics, the atmosphere and the ocean. It's fun . . . not easy. . . not simple. . . not make believe . . . not boring . . . but fun.

Robby Robinson, in his article "School Houses Under Sail" praises sailing vessels as "learning platforms, as observation posts, as transportation systems for awareness, and as delivery systems for understanding. Anonymity, distraction, absence, and other ills that attend regular school are addressed

quite simply when every one is 'in the same boat'.

"The unified mental and physical nature of sail training, the learning community that it sets up, and the 'clean slate' mentality that comes when you cast off, makes sailing an effective learning structure. Kids learn to take responsibility for the ship, for learning how to work it, for their shipmates, and ultimately for themselves. They learn to trust themselves as well as others." They learn to communicate precisely with a language born of the pragmatism of a thousand years of seafaring. They become comfortable with cause and effect, as well as sequencing, persistence, endurance, patience, and courage. All of which are very difficult to teach in a classroom. There is well documented educational research showing that learning to sail is a very effective therapy for dyslexia.

Much is being said today about the importance of self esteem. Without doubt, strong positive self esteem is one of the essential ingredients for a successful person. Many, often simplistic, remedies for low self esteem have been offered to parents, teachers and others who work with youth. And most of these remedies, if properly applied, have some positive effect. But the bottom line seems to be that positive self esteem comes from knowing that you can do something that not everyone else can do and that you can do it well. It's not just learning to sail, it's what you learn from sailing.

Let me tell you about Jay. I first met Jay when he came to our Alternative School as a second or third grader with a truly tragic personal background. He was so consumed with rage that he had been misdiagnosed and placed in an autism program at his former school.

Since I worked primarily as a secondary teacher, I had little formal contact with him in his early years at the school. Only an occasional "enrichment" offering for the "little kids" such as model making, video drama, gardening, etc. About all I can say for myself is that I managed to not let him pick a fight with me. By the time Jay had made it to the 7th or 8th grade, he was a gruff, explosive, stocky, muscular, clumsy introvert, whose spoken vocabulary consisted mostly of "shut up!" "go away!" and "leave me alone!" shouted with the helpless intonation of a kid who saw himself as a loser, a victim of life.

Frankly, I felt some trepidation when he finally accepted my invitation and signed up for a one quarter, one afternoon a week, sailing class. Fortunately, about half of the students had been enrolled in the sailing class for one or more quarters previously and were comfortable with the "number one rule" which is: "No matter how you really feel about it, you will always treat every other member of the class as though you were best friends. No teasing, no 'bagging', no favorites." Jay had a hell of a time that first day. He couldn't seem to move about the boat without bumping into things. He couldn't seem to heave on a line in synchrony with the other kids. Steering was way beyond him visually, not to mention steering by compass. He even spilled his cup of cocoa and dropped his piece of cake that afternoon. I really was surprised when he came back the next week. (I hadn't yet discovered his stubborn streak.)

It took Jay nearly a year to learn to coil a halyard and hang it securely on a belaying pin. Most kids master that on their second or third try. But Jay signed up for the class every quarter, and when the time came, he signed up for the annual week long trip to Catalina. One of the landmark days that first year, occurred on one drizzly afternoon daysail, when we presented Jay with a rather crudely decorated birthday cake we had baked aboard. "What's this for?" he demanded. "It's your birthday, you dumb shit!" one of his new friends replied, with a big grin. After a very long pausewith moist eyes and a very soft voice, Jay said "thanks".

One memorable day during Jay's second year, one of the new kids was having trouble coiling a halyard and Jay startled all of us by jumping up from across the boat and shouting "Let me show him. I know how."

Jay continued to grow into a confident and competent young man both aboard and ashore. One of my most treasured photos is one of Jay, taken in the eleventh grade, smiling confidently from the helm of a 100 foot schooner off the coast of Catalina.

When Jay graduated, he asked me to present his diploma. When I introduced him by saying "I am proud to present this fine, handsome young man . . . a gentleman and a scholar . . . a poet and a good sailor . . . and my friend, Jay", you can bet this came from the heart. It had to. I couldn't read my notes through the tears.

I don't mean to suggest that all of the wonderful changes that took place with Jay were because of the sailing program. Sailing was only a part of it. The Mid City Alternative School was, and still is, a fine school, with a strong and dedicated staff. But it was the sailing program that offered Jay an environment that was demanding, yet soothing, consistent and fair. The vessel and the sea do not know who you used to be or what some one else thinks of you. And the rules of nature never change on you or favor the other guy. Jay is who he is today because he decided who he wanted to be and took charge of his own life. The sailing school teaches you to understand the systems, adapt to the circumstances, plot a course, and take command. What Jay, and others like him, got from the sail training program is important. But what I learned from them changed my life as an educator.

During my 32 years as a teacher, I have devised numerous laboratory exercises to help the kids understand the basics of physical science and engineering. I can't count the kids I've tortured with terms and concepts such as force, friction, mechanical advantage, work, power, velocity, acceleration, mass, inertia, conservation of energy, etc; concepts which are as important to the making of a physicist, engineer or mechanic as metaphor is to a poet.

None of my best lab exercises with the finest class of gifted students can hold a candle to that full size, hands on, real life, complicated, dynamic, obdurate contraption called a sailing vessel. So long as my crew and I are careful to use the correct terminology, the kids internalize these concepts in an integrated fashion that will last for a learning lifetime. And they wear us out with their questions. It's not surprising that numerous similar curricular examples can be given for the life sciences or the earth sciences. What is surprising, is how many street tough kids "discovered" poetry with my on board copy of Masefield. Or how many kids read their first book strictly for the fun of it from the ship's library.

In the classroom we try to get each kid to at least memorize what. We are delighted when some learn how. On board, they usually demand to know what, how and why.

For most kids, learning, interpreting, and applying the maritime "rules of the road" is their first exposure to a system of regulations that is necessary, logical, beneficial, fair, and uniformly applied to everyone. This may seem trivial to you or me, but to many of my inner city kids, who usually see the "law" as the enemy, this is a first . . . a real eye opener.

Learning navigation and piloting is not only important for math and map reading skills, but when did you learn to weigh the options, select a destination, figure out how to get there safely and efficiently,

and then do it?

The other curricular connections are too numerous to list completely, but consider this example of a discussion which, with variations, is commonly heard on board: It usually starts with questions from the kids about the cargo carrying capacity of a passing ship along with questions about their speed. Next comes "How many crew?" "How much fuel do they use?" Etc. If the ship carries 50,000 tons, that's equal to 1000 railroad cars, which is a train about 10 miles long. Or if you would rather visualize it in highway big rigs, that's about 2500 tractor trailer combinations and that works out to a convoy about 50 miles long. When the discussion branches off to air freight, the kids quickly determine that there probably aren't enough cargo jets in the world to replace the ships we can see from where we are. And further, it couldn't be done at all if the jet fuel had to be delivered by air.

Now just where does all of this fit in the curriculum? Is it math or geography, commerce, science, economics, history or what? The answer of course is that it is education; not just schooling. The sailing vessel is an elegant platform for the study of the planet in its entirety and the human interaction with it. (Or impact on it)

For the purpose of education, we are fortunate to be operating out of L.A./L.B. harbor, one of the world's busiest harbors, which is also one of the world's cleanest commercial harbors. It is common to see gulls, terns, pelicans, cormorants, grebes and other sea birds feeding in the outer harbor between anchored ships. Sea lions abound and during their northward migration, gray whales are frequently spotted inside the harbor. It's almost as though momma whale is showing her new calf the sights on their way to the Bering Sea.

A short distance offshore we generally encounter more species of birds, porpoise, sharks, pilot whales, and jelly fish. The list is endless and different on every trip. And of course the offshore island anchorages offer truly spectacular displays of wildlife.

To be immersed in all of this, while in close juxtaposition with such conflicting uses as commercial fishing, sport fishing, manufacturing, cargo handling, bunkering, a naval base, research vessels, pleasure boating and people playing on the beach, is an education in environmental awareness. The kids soon recognize that informed decision making is not easy and uninformed decision making is seldom satisfactory. Is there a more significant step in the development of responsible citizenship?

The on-board library is seen to be a valuable collection of references that are both interesting and fun. In most cases, with only a few exceptions, the same books were in my classroom, where they were usually seen as "schoolbooks", of make believe importance.

I've seen kids routinely look up a visiting ship in the daily Marine Exchange list of "Active Ships in Port" to see where the ship was from, where it was bound, and then dive into the on-board copy of Goode's World Atlas (a basic college reference atlas) to research not only the geographic locations of the ports, but also the natural resources, the climate types, the economies, the population distribution, etc. All so they could speculate and argue about the probable cargo the ship was carrying. The atlas is seen for what it should be . . . a marvelous tool.

There is an interesting progression of skills that evolves around radio communication on board a sailing school vessel. As with any properly equipped vessel, we monitor the VHF channels that are appropriate

to our operation:

- 9 Noncommercial ship to ship
- 12 Port operations, pilot
- 13 Vessel movements, navigation announcements
- 14 Vessel Traffic Control System
- 16 Calling and distress
- 22 US Coast Guard
- 77 Pilot/tug communication

Our receiver is usually set to scan all of these frequencies. The background noise is a disruption of the otherwise peaceful quiet of a sailing vessel.

When students first become aware of the radio, they usually complain that they can't understand much of what's being said, but soon they learn to hear the words of a message such as: "Securitay..securitay..This is the tug Sea Horse with a bunker barge alongside, leaving berth 194 bound for L.A. anchorage C-5. Will stand by channel 13 for all concerned traffic." After learning to hear a message of this type, the kids want to know what it means, why they broadcast it, and who cares and why? At this point, the students' curiosity is really ripe. We consult the chart, find berth 194 and L.A. anchorage C-5. I describe the maneuvering difficulties of a tug with a barge tied along side. We consider what that means to us or any other vessel operating in the vicinity. I comment that channel 13 is reserved for this kind of communication between ships. We imagine what it would be like if it were foggy or stormy. Often we see the actual vessels doing their jobs.

It is surprising to me as a classroom teacher how quickly and thoroughly the kids learn this much information and how accurately they teach it to the next kid. But this is only the beginning. The kids take turns standing a radio watch where they must hear, listen, understand, interpret and evaluate a steady stream of transmissions, much of it not directed or important to us. The student must be alert to identify transmissions that are significant to us. For example, distress calls, USCG urgent marine information broadcasts, calls addressed specifically to us, notices to mariners, and navigation information from other vessels in our vicinity. The student must interpret the information, decide what, if anything to record, (such as location of vessel in distress) and notify the skipper and/or helmsman of the message.

So why does this excite me as an educator? After all, only a few of my students have made careers in the maritime industry. Nearly all of the rest of them are working in non-maritime fields. Many national assessments of what the nation needs from schools list skills of this sort which are very difficult to teach in the classroom but which are acquired almost automatically on board a well run sailing school vessel.

The Dept. of Labor's SCANS Report (The Secretary's Commission on Achieving Necessary Skills, 1992) identifies and describes the "workplace knowhow" that defines effective job performance today. SCANS research verifies five areas of competency that lie at the heart of job performance. The five areas deal with resources, interpersonal, information, systems and technology.

Let me quote from the summary on information:

- A. Acquires and evaluates information
- B. Organizes and maintains information
- C. Interprets and communicates information
- D. Uses computers to process information

We don't ordinarily use computers aboard. But three out of four isn't bad. If you have never tried to teach this sort of competency in a classroom, it's not easy. Under way it seems like second nature.

But, you say, the acquisition and use of information is only one of five essential competencies. True, but I've only described the radio watch, a very minor part of the sail training experience. If you are really interested, read the other four SCANS competency descriptions for yourself. The correlations with the operation of a sailing vessel are obvious and need no explanation from me. Just one closing SCANS quote:

"The five SCANS competencies span the chasm between the worlds of the school and the workplace. Because they are needed in workplaces dedicated to excellence, they are the hallmark of today's expert worker. And they lie behind every product and service offered on today's market." The SCANS report lists "gathering, analyzing, and acting on information" as examples of "skills needed for skilled work that are not taught in school". Interestingly enough, this is also the job description for lookout, one of the earliest responsibilities given to students on board.

Sail Training is neither a new, untested technology, nor is it a quaint, arcane, anachronism lingering on only in stodgy, stagnant, immobile societies. To the contrary sail training is a vibrant growing field of endeavor throughout Europe, Asia, Latin America, Australia, and Canada. Government supported examples abound world wide. From such emerging nations as Indonesia, Oman, India, Brunai, to modern industrialized nations including Germany, Japan, U.K., in fact all NATO nations except Turkey, also Poland, Bulgaria, and several republics of the former USSR. In this hemisphere national sail training vessels operate in Canada, Mexico, Colombia, Brazil, Argentina, Chile, Ecuador, Uruguay, Venezuela. In the United States the Coast Guard Barque "Eagle" is the only governmentally operated sail training vessel.

There are several successful locally supported sail training programs along the East Coast, the Gulf Coast, the Great Lakes, and the Pacific Northwest. Southern California with its year around sailing climate, excellent maritime environment, and massive "at risk" population is notable for its shortage of suitable programs.

It has been observed that "we are a nation enormously rich in technology and yet desperately poor in experience". As an experiential education endeavor, sail training is a demonstrably cost effective method to improve knowledge, skills, and attitudes.

We have the kids, we have the need, we have the know-how. Let's do it!

Among the infinite array of factors and events that influence the course of a person's life there are a few "windows of opportunity" that are particularly open to outside intervention. One of these is adolescence, that period when most youth's first question and challenge authority, when newly discovered causes are most passionately embraced, and the human need for exploration and adventure is most easily fulfilled. That is, if you are growing up in an accepting, nurturing, loving, family and society that can afford the luxury of cultivating it's next generation.

"WORDS FROM THE UNWRITTEN BOOK" J. L. G.